Knowledge–Driven Architecture

Abstract

A system and method for building software applications. The system includes a knowledgebase, an application scenario player, a service connector, presentation components, and underlying system component–services. The method speeds up software system development and provides a greater flexibility to system behavior. Developers or subject matter experts can omit multiple steps of translating application requirements into traditional programs, and instead directly store business rules and application scenarios written in "almost natural" language in the knowledgebase. The application scenario player and the service connector transform application scenarios into interactions with the knowledgebase, presentation components, and underlying application services. Application scenarios and business requirements/rules stored in the knowledgebase represent the application layer, providing a clean separation from the system layer with its underlying service components that include application services. A business expert, a developer, or a partner program can change and introduce new business rules or scenarios at run–time, and can add, replace, or

remove service components. The invention provides a better separation between generic service components and specific rules and scenarios that distinguish the application. Services in knowledge-driven architecture are coded as integration-ready components and can be moved down to the system level along with the database and operating system. Business rules and scenarios that represent a very light application layer can be created and changed at run-time by business experts, who would have their chance to influence application behavior, and to say not only "what" should be done, but also "how". The main component of the application is a knowledgebase that stores application requirements as application scenarios and business rules. The Application Scenario Player and the Service Connector transform application scenarios into interactions with the knowledgebase, presentation components, and underlying application services.